

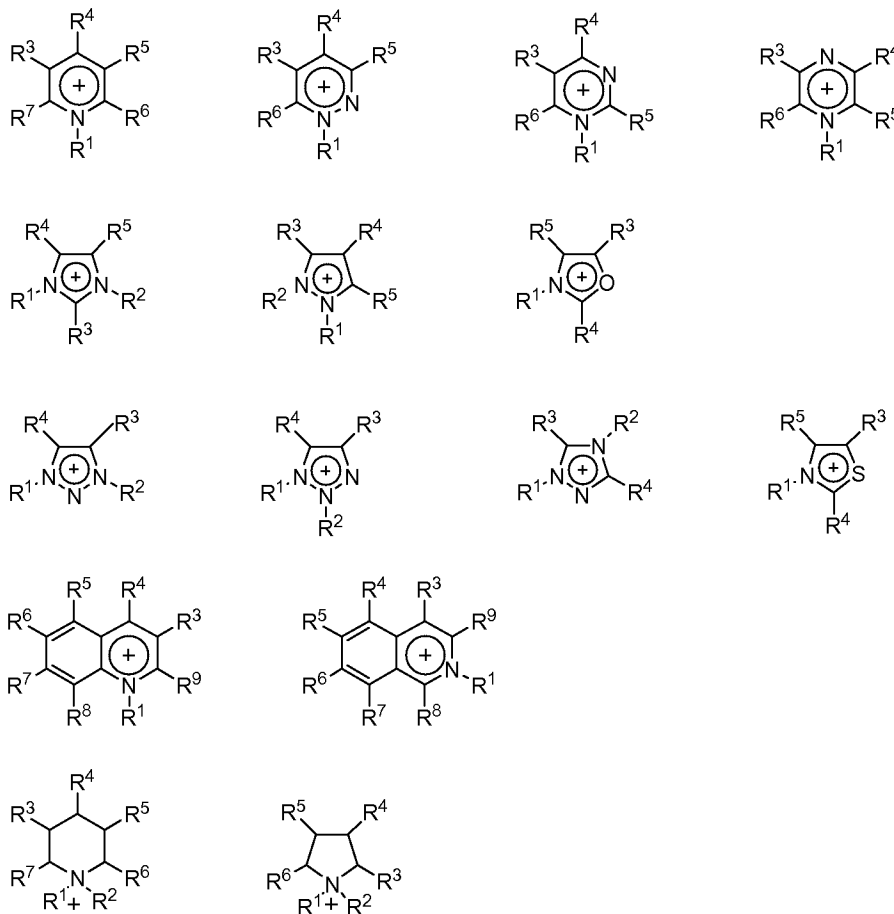
CLAIM LISTING

No claims have been amended, canceled, or added. A complete claim listing is included for the convenience of the Examiner.

1. (Previously Presented) A method for depolymerizing starch comprising mixing a starch material with an ionic liquid solvent comprising a cation and an anion to dissolve the starch, and then treating the dissolved starch by agitating at a temperature and for a period for time to effect depolymerization of the starch into desired depolymerization products.
2. (Original) The method according to claim 1 wherein microwave irradiation is applied to assist in dissolution and depolymerization.
3. (Previously Presented) The method according to claim 1 wherein pressure is applied to assist in dissolution and depolymerization.
4. (Previously Presented) The method according to claim 1 wherein the depolymerization temperature is at least 70°C.
5. (Previously Presented) The method according to claim 1 wherein the depolymerization period is at least 5 minutes.
6. (Previously Presented) The method according to claim 1 wherein the starch is depolymerized selectively such that the amylose of the starch is depolymerized into sugars and the amylopectin of the starch is retained essentially unchanged.
7. (Previously Presented) The method according to claim 1 wherein the starch is depolymerized quantitatively such that both the amylose and the amylopectin of the starch are depolymerized into sugars.

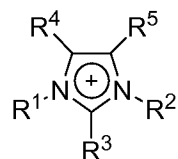
8. (Original) The method according to claim 1 wherein the ionic liquid solvent is molten at a temperature of below 200°C.

9. (Original) The method according to claim 1 wherein the cation of the ionic liquid solvent is selected from the group consisting of



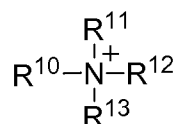
wherein R^1 and R^2 are independently a C_1 - C_6 alkyl or C_2 - C_6 alkoxyalkyl group, and R^3 , R^4 , R^5 , R^6 , R^7 , R^8 and R^9 are independently hydrogen, a C_1 - C_6 alkyl, C_2 - C_6 alkoxyalkyl or C_1 - C_6 alkoxy group or halogen, and
wherein the anion of the ionic liquid solvent is halogen, pseudohalogen, perchlorate or C_1 - C_6 carboxylate.

10. (Previously Presented) The method according to claim 9 wherein said cation comprises



wherein R^3 - R^5 are each hydrogen and R^1 and R^2 are the same or different and represent C_1 - C_6 alkyl, and said anion is halogen.

11. (Original) The method according to claim 1 wherein the cation of the ionic liquid solvent is



wherein R^{10} , R^{11} , R^{12} and R^{13} are independently a C_1 - C_{30} alkyl, C_3 - C_8 carbocyclic or C_3 - C_8 heterocyclic group and the anion of the ionic liquid solvent is halogen, pseudohalogen, perchlorate, C_1 - C_6 carboxylate or hydroxide.

12. (Previously Presented) The method according to claim 1, further comprising separating the depolymerization products from the solution by adding a non-solvent for the depolymerization products to precipitate the depolymerization products.

13. (Original) The method according to claim 12 wherein said non-solvent is an alcohol, a ketone, acetonitrile, dichloromethane, a polyglycol, an ether or water.

14. (Previously Presented) The method according to claim 1, further comprising separating the depolymerization products from the solution by extraction with a non-solvent for the ionic liquid solvent.

15. (Previously Presented) The method according to claim 2 wherein pressure is applied to assist in dissolution and depolymerization.

16. (Previously Presented) The method according to claim 1 wherein the depolymerization temperature is at least 80°C .

17. (Previously Presented) The method according to claim 10 wherein said anion is chloride.